

PUBLICATION NUMBER : 09304310
PUBLICATION DATE : 28-11-97

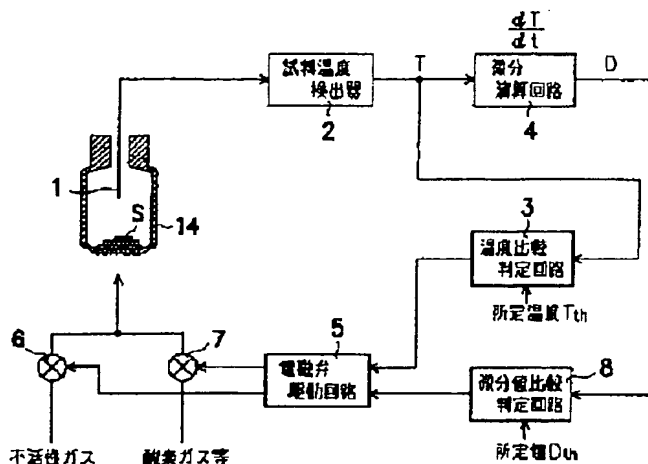
APPLICATION DATE : 09-05-96
APPLICATION NUMBER : 08140812

APPLICANT : SHIMADZU CORP;

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INT.CL : G01N 25/50

TITLE : SPONTANEOUS IGNITION TEST DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To precisely judge spontaneous ignition of a sample beforehand and surely prevent firing of the sample by making inert gas flow-in to take a firing prevention measures, when an increase rate, namely a differential value, of the sample temperature exceeds a prescribed value.

SOLUTION: A sample S is stored in a sample holding container 14, having a thermocouple 1 arranged therein. A sample temperature detector 2 detects a sample temperature T, by measuring electromotive force of the thermocouple 1. The detected sample temperature T is sent to a temperature comparison judgment circuit 3 and a differential operation circuit 4. When the sample temperature T detected by the detector 2 is compared with a preset prescribed temperature Tth and the sample temperature T is judged to exceed the set temperature Tset by the judgment circuit 3, or the differential value D computed by the operation circuit 4 is judged to exceed the prescribed value Dth by a differential value comparison judgment circuit 8, solenoid valves 6, 7 are switched and the inert gas is made to flow in a device main body 11, so that the sample S is actually prevented from ignition before its occurrence.

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